



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI-DADE COUNTY
PRODUCT CONTROL SECTION

11805 SW 26 Street, Room 208

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www.miamidade.gov/economy

NOTICE OF ACCEPTANCE (NOA)

Cooley, Inc.
50 Esten Avenue
Pawtucket, RI 02860

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

DESCRIPTION: Cooley Standard Roofing, Cooley C3, C3FB and C3Plus PVC Single Ply Roof Systems over Steel Decks

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA revises NOA# 14-0527.04 and consists of pages 1 through 29.
The submitted documentation was reviewed by Alex Tigera.



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Expiration Date: 07/27/21
Approval Date: 07/21/16
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ROOFING SYSTEM APPROVAL

Category:	Roofing
Sub-Category:	Single Ply
Material:	PVC
Deck Type:	Steel
Maximum Design Pressure	-75 psf

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Cooley Standard Roofing	Various	ASTM D 4434	A single ply non-elvaloy PVC roof covering membrane.
Cooley Standard Perimeter Sheet 50-80 mil	Various	ASTM D 4434	A single ply non-elvaloy membrane perimeter sheet
Cooley C-3 Membrane 40 – 100 mil	78" x 108" 702 sf. roll	ASTMD 4434	40-100 mil thermoplastic alloy membrane field membrane.
Cooley C-3 Perimeter Sheet 40 – 100 mil	39" x 108' 351 sf. roll	ASTM D 4434	40-100 mil thermoplastic alloy membrane perimeter sheet.
Cooley C-3 Plus Membrane 40 – 100 mil	78" x 100' 650 ft. ² roll	ASTMD 4434	40-100 mil thermoplastic alloy membrane field membrane.
Cooley C-3 Plus Perimeter Sheet 40 – 100 mil	39" x 100' 325 ft. ² roll	ASTMD 4434	40-100 mil thermoplastic alloy membrane perimeter sheet.
Cooley C-3 Reinforced Flashing Membrane	6", 8", 12", 18" & 24" variable length rolls	ASTM D 4434	40-100 mil thermoplastic flashing membrane.
Cooley Standard Roofing Reinforced Flashing Membrane	various	ASTM D 4434	Single Ply PVC flashing material
Cooley Standard Roofing Coated Metal	various	ASTM D 4434	Single Ply PVC membrane laminated 24 Ga. galvanized steel.
Cooley Standard Roofing RAM Flashing	various	ASTM D 4434	Single Ply PVC membrane flashing material
Cooley Standard Roofing RAM Universal Corners	various	ASTM D 4434	Single ply PVC membrane
Cooley C-3 Fleece Backed Membrane	various	ASTM D 4434	Thermoplastic fleece back membrane
Cooley C-3 Coated Metal	4' x 8' 4' x 10' sheets	US Commercial Standard CS- 245-62	C-3 membrane laminated 24 Ga. galvanized steel.
Cooley C-3 Fleece Back RAM	76" x 100' 39" x 100' 325 ft. ² roll	ASTM D 4434	Thermoplastic fleece back membrane. Adhered applications.

TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT:

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
Cooley C-3 Fleece Back RAM Flashing	12" x 100' 100 ft. ² roll 24" x 100' 200 ft. ² roll	ASTM D 4434	Thermoplastic fleece back membrane flashing material.
Cooley C-3 Fleece Back RAM Universal Corners	14" x 14"	ASTM D 4434	Thermoplastic fleece back membrane. Adhered applications.
Cooley C3 Bonding Adhesive	5 gallon pails	proprietary	Solvent based adhesive for fully adhered RAM systems and C3PLUS roofing membrane.
Cooley WB Bonding Adhesive	N/A	proprietary	Water Based adhesive for fully adhered C3PLUS Roofing Membrane.
Cooley Coolgrip Walkway	0.072" x 36" x 60'	proprietary	Walkway pad (roll configuration)
Cooley Coolgrip Heavy Duty Walkway	0.150" x 36" x 60'	proprietary	Walkway pad (roll configuration)

APPROVED INSULATIONS:

TABLE 2

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
ACFoam II, III	Isocyanurate Insulation	Atlas Roofing Corp.
Styrofoam	Extruded Polystyrene.	Dow Chemical
ISO 95+ GL, ISOGARD HD Composite	Polyisocyanurate foam insulation	Firestone Building Products
EnergyGuard Perlite	Perlite insulation board.	GAF Materials Corp.
Dens Deck, Dens Deck Prime	Silicon treated gypsum	G-P Products
High Density Wood Fiberboard	High Density Wood Fiber insulation board.	Generic
Perlite Insulation Board	Perlite Insulation	Generic
Type X Gypsum, Gypsum	Gypsum Wallboard	Generic
EPS or XPS Insulation	Expanded or Extruded Polystyrene.	Generic
H-Shield	Isocyanurate Insulation	Hunter Panels
ENRGY 3, ENERGY 3 PSI-25	Isocyanurate Insulation	Johns Manville
Fesco Foam	Isocyanurate Insulation with perlite facer	Johns Manville
DuraFoam	Isocyanurate Insulation with perlite facer	Johns Manville
Fesco Board	Rigid perlite roof insulation board.	Johns Manville

APPROVED INSULATIONS:**TABLE 2**

<u>Product Name</u>	<u>Product Description</u>	<u>Manufacturer (With Current NOA)</u>
Ultra-Max, Multi-Max FA, Thermaroom Composite	Polyisocyanurate foam insulation	Rmax Operating, Inc.
Structodeck High Density Fiberboard	High Density Wood Fiber insulation board.	Wood Fiber Industries

APPROVED FASTENERS:**TABLE 3**

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
1.	#12 Standard Roofgrip	Insulation and membrane fastener	Various	OMG, Inc
2.	#14 Roofgrip	Insulation and membrane fastener	Various	OMG, Inc.
3.	ASAP Roofgrip Pre-Assembled System	Insulation and membrane fastener consisting of a steel seam plate and screw.	2-3/8" plate & #15 Screw	OMG, Inc
4.	OMG Plastic Plate	Plastic plates for fasteners.	3" round	OMG, Inc.
5.	Dekfast Fasteners #14	Insulation and membrane fastener	Various	SFS Intec, Inc.
6.	Dekfast Galvalume Steel Hex	Galvalume AZ50 stress plate	2-7/8" x 3-1/4"	SFS Intec, Inc.
7.	Dekfast #15 HS	Insulation and membrane fastener	Various	SFS Intec, Inc
8.	Dekfast Isofast IF-2.3/8 Membrane Plate	Square or oblong Galvalume steel plates for use with #15 fasteners	Various	SFS Intec, Inc.
9.	#15Roof Grip	Insulation and membrane fastener	#15	OMG, Inc
10.	OMG 2-3/8" Barbed XHD Plate	Galvalume stress plate	2-3/8"	OMG, Inc
11.	Trufast #15 EHD Fasteners	Insulation and membrane fastener	Various	Altenloh, Brinck & Co
12.	Trufast 2.4" Barbed Metal Seam Plate	Galvalume stress plate	2.4"	Altenloh, Brinck & Co
13.	MaxLoad Fasteners	Insulation and membrane fastener	Various	OMG, Inc
14.	OMG 2-3/4" Super XHD Barbed Plate	Round galvanized stress plate		OMG, Inc
15.	OMG Super XHD	Insulation and membrane fastener	Various	OMG, Inc
16.	OMG 2-3/4" Super XHD Barbed Plate	Galvalume stress plate	2.75"	OMG, Inc
17.	#15 Roofgrip	Insulation and membrane fastener	Various	Firestone Building Products
18.	Trufast 3" Metal Insulation Plate	Galvalume stress plate	Various	Firestone Building Products
19.	#12 Standard Stainless Steel	Insulation and membrane fastener	Various	OMG, Inc
20.	Strap Toggle	Insulation and membrane fastener	Various	OMG, Inc

APPROVED FASTENERS:

TABLE 3

<u>Fastener Number</u>	<u>Product Name</u>	<u>Product Description</u>	<u>Dimensions</u>	<u>Manufacturer (With Current NOA)</u>
21.	OMG Heavy Duty	Insulation and membrane fastener	Various	OMG, Inc
22.	Accutrac Fastening System	Insulation and membrane fastener and plate	Various	OMG, Inc
23.	Recessed Metal Plate	Galvalume steel plate	Various	OMG, Inc
24.	ASAP Roofgrip Pre- assembled System	Insulation and membrane system	Various	OMG, Inc
25.	#12 Standard Hex Head	Insulation and membrane fastener	Various	OMG, Inc
26.	Dekfast #12	Insulation and membrane fastener	Various	SFS Intec, Inc
27.	Dekfast #12 Hex	Insulation and membrane fastener	Various	SFS Intec, Inc
28.	Dekfast Dekflat Round Plastic Lock Plate	Insulation and membrane Plate	3"	SFS Intec, Inc
29.	Dekfast Galvalume 3" Steel Round Plate	Insulation and membrane Plate	3"	SFS Intec, Inc
30.	Dekfast Galvalume Steel Hex	Insulation and membrane fastener	Various	SFS Intec, Inc
31.	Dekfast Isofast IFC/IW- 70x70	Insulation Plate	Various	SFS Intec, Inc
32.	Dekfast K-Fast	Insulation and membrane fastener	Various	SFS Intec, Inc
33.	Dekfast Recessed Galvalume Steel Hex	Stress Plate	Various	SFS Intec, Inc
34.	Dekfast System ES #12 Plastic	Pre-assembled	Various	SFS Intec, Inc
35.	Dekfast System ES #12 Steel	Pre-assembled	Various	SFS Intec, Inc
36.	Dekfast System ES #14 Plastic	Pre-assembled	Various	SFS Intec, Inc
37.	Tru-Fast #12 DP Fastener	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
38.	Tru-Fast #12 DP-H Fastener	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
39.	Tru-Fast #14 HD Fastener	Insulation and membrane fastener	Various	Altenloh, Brinck & Co.
40.	Tru-Fast 3" Metal Insulation Plate	Stress Plate	3"	Altenloh, Brinck & Co.

EVIDENCE SUBMITTED:

<u>Test Agency/Identifier</u>	<u>Report</u>	<u>Name</u>	<u>Date</u>
Factory Mutual Corp.	3025170	4470	02/07/06
	3021133	4470	02/07/06
	3017177	4470	01/09/04
	3047298	4470	10/08/13
	J.I. 0X2A9.AM	4470	06/26/93
	J.I. 3W1A1.AM	4470	03/29/93
	J.I. 1V1A8.AM	4470	04/21/92
	J.I. 1W1A9.AM	4470	09/11/93
	J.I. 1X3A6.AM	4470	10/03/93
	J.I. 1W9A2.AM	4470	06/15/93
	J.I. 1W2A0.AM	4470	08/24/93
	J.I. 3W3A4.AM	4470	03/26/93
	J.I. 0X8A9.AM	4470	06/25/93
	J.I. 1X6A5.AM	4470	10/12/93
	J.I. 2W5A6.AM	4470	06/01/93
Underwriters Laboratories, Inc.	File R9834 (N)	UL 790	04/06/93
Momentum Technologies, Inc.	NX21J0A	ASTM D 4434	06/01/11
	NX21J0B	ASTM D 4434	07/20/11
	NX21J0C	ASTM D 4434	06/01/11
	CX23G3A	ASTM D 4434	07/15/15

DECK STRESS ANALYSIS CALCULATIONS/REPORTS

<u>Engineer/Agency</u>	<u>Identifier</u>	<u>Assemblies:</u>	<u>Date</u>
FM Approval Deck Limitation	RoofNav Listing	D(1), D(2), D(3), D(5), D(6), D(7), D(8), D(9), D(12), D(14)	04/27/16

APPROVED ASSEMBLIES

Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. 33ksi Steel
System Type C(1): All layers of insulation simultaneously attached; C3 Plus membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener</u> <u>Density/ft²</u>
ACFoam-II, ACFoam-III Minimum 2" thick	1, 4, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40,	1: 4 ft ²
ENRGY 3 PSI 25, ValuTherm Minimum 2" thick	17, 18, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36	1: 4 ft ²
ISO 95+ GL Minimum 2" thick	1, 17, 18, 22, 23, 24, 19, 20, 21, 25, Steel Plate only for OMG	1: 4 ft ²
ACFoam II, ACFoam III Minimum 1.5" thick	1, 4, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40,	1: 2 ft ²
High Density Wood Fiberboard Minimum 1" thick	1, 4, 17, 18, 19, 20, 21, 25,	1: 2 ft ²

Note: All layers shall be simultaneously fastened. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane fully adhered to the insulation with Cooley C3 Bonding Adhesive applied at the rate of 0.83 gal./sq. on both the membrane and the substrate for a total of 1.67 gal./sq., and a heat welded seam minimum 1½” wide at the laps, or Cooley WB Bonding Adhesive applied at the rate of 0.67 gal/sq to the substrate.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



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Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga. 33 ksi. Steel
System Type C(2): All layers of insulation simultaneously attached; C3 Plus membrane fully adhered

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Perlite Insulation Board, ISO 95+ GL, Thermaroom Composite, Fesco Foam, or Duraboard, followed by a ½" to 1" Wood Fiberboard Thermaroom Composite Minimum 0.75" thick	N/A	N/A

<u>Middle Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
Wood Fiberboard Thermaroom Composite Minimum 0.5" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam-II, ACFoam-III Minimum 2" thick	1, 4, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40,	1: 4 ft ²
ENRGY 3 PSI 25, ValuTherm Minimum 2" thick	17, 18, 22, 23, 24, 26, 27, 28, 29, 30, , 32, 33, 34, 35, 36	1: 4 ft ²
ISO 95+ GL Minimum 2" thick	1, 2, 17, 18, 22, 23, 24, 19, 20, 21, 25, Steel Plate only for OMG	1: 4 ft ²
ACFoam II, ACFoam III Minimum 1.5" thick	1, 4, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 34, 35, 36, 37, 38, 39, 40,	1: 2 ft ²
High Density Wood Fiberboard Minimum 1" thick	1, 4, 17, 18, 19, 20, 21, 25	1: 2 ft ²



Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane fully adhered to the insulation with Cooley C3 Bonding Adhesive applied at the rate of 0.83 gal./sq. on both the membrane and the substrate for a total of 1.67 gal./sq., and a heat welded seam minimum 1½" wide at the laps, or Cooley WB Bonding Adhesive applied at the rate of 0.67 gal/sq to the substrate.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: 18-22 ga 33 ksi. Steel
System Type C(3): All layers of insulation simultaneously attached; membrane fully adhered.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ACFoam II, Multi-Max FA, ENRGY-3, ENRGY-3 PSI-25, ISO 95 + GL Minimum 1.4" thick	N/A	N/A

Note: All layers shall be simultaneously fastened; see top layer below for fasteners and density. Insulation panels listed are minimum sizes and dimensions; if larger panels are used, the number of fasteners shall be increased maintaining the same fastener density. Please refer to Roofing Application Standard RAS 117 for insulation attachment.

<u>Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
ISO 95 + GL, ENRGY-3, ENRGY-3 PSI-25, Minimum 1.4" thick	1, 4, or 7	1:2 ft ²
ACFoam II, Multi-Max FA Minimum 1.5" thick	1, 4, or 7	1:2 ft ²
High Density Wood Fiberboard Minimum ½" thick	1, 4, or 7	1:2 ft ²

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Fleece Back Roof Cover fully adhered to the insulation with Cooley C3 Bonding Adhesive applied at the rate of 1 gal./sq., or approved mopping asphalt applied at the rate of 25 lbs./sq. Optional mechanical attachment of membrane using fasteners and plates noted in System Type D spaced 36" o.c. is permitted.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.

System Type D(1): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Composite, ACFoam II, ISO 95+GL, Ultragard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Fiberboard, EnergyGuard Fiberboard, Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

Fastening : Membrane is mechanically attached using ASAP Roofhrip Pre-assembled System, or Trufast 2.4" Barbed Metal Seam Plate and Trufast #15 EHD fasteners; OMG 2-3/8" Barbed XHD Plate and #15 Roofgrip fasteners; spaced 6" o.c. through 5" wide laps spaced in rows 73" apart. The 5" wide laps are then sealed with a minimum 1-1/2" wide heat seal.

Maximum Design Pressure: -60 psf; (See General Limitation #7.)



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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks 1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submitted Table.

System Type D(2): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermaroom Composite, ACFoam II, ISO 95+GL, Ultragard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Fiberboard, EnergyGuard Fiberboard, Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

Fastening: Membrane is mechanically attached using OMG 2-3/8" Barbed XHD Plate and #15 Roofgrip fasteners; ASAP Roofgrip Pre-assembled System spaced 6" o.c. through 4½" wide laps spaced in rows 114" apart. The 4½" wide laps are then sealed with a minimum 2" wide heat seal.

Maximum Design Pressure: -60 psf; (See General Limitation #7.)



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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks 1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittal Table.

System Type D(3): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, Structodek ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarook Plus, ACFoam II, ISO 95+GL, Ultragard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Fiberboard Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using ASAP Roofgrip Pre-assembled System; Trufast 2.4" Barbed Metal Seam Plate with Trufast #15 EHD fasteners; OMG 2-3/8" Barbed XHD Plate with #15 Roofgrip fasteners; spaced 12" o.c. through 5" wide laps spaced in rows 73" apart. The 5" wide laps are then sealed with a minimum 1-1/2" wide heat seal.



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Fastening #2: Membrane is mechanically attached using OMG 2-3/4" Super XHD Barbed Plate with MaxLoad fasteners; OMG Super XHD Fasteners with Trufast 2.4" Barbed Metal Seam Plates spaced 12" o.c. through 5½" wide laps spaced in rows 114" apart. The 5½" wide laps are then sealed with a minimum 2" wide heat seal.

Maximum Design Pressure: -45 psf; (See General Limitation #7.)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks 1 fasteners spaced at 30 in. o.c.

System Type D(4): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, Structodek ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ISO 95+GL, Ultragard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Fiberboard Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or Dekfast #14 or #15 HS Fasteners and Dekfast Galvalume 3" Steel Round Plates spaced 6" o.c. through 6" wide laps spaced in rows 72" apart. The 6" wide laps are then sealed with a minimum 1½" wide heat seal.

Fastening #2: Membrane is applied over insulation and its 2" laps are sealed. Membrane is then mechanically attached to deck using ASAP Roofgrip Pre-Assembled System or Dekfast #14 or #15 Heavy Duty Fasteners and Dekfast Galvalume 3" Steel Round Plates spaced 6" o.c. in rows 8' apart. A 6" wide strip of membrane is then heat welded over the fastener rows or a 6" dia. membrane cap may be heat welded over each fastener and plate.

Fastening #3: Membrane is mechanically attached using Dekfast Isofast IF 2.375-AT Membrane Plates with Dekfast #15 HS spaced 6" o.c. through 6" wide laps spaced in rows 66" apart. The 6" wide laps are then sealed with a minimum 1½" wide heat seal.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.

System Type D(5): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, EnergyGuard HD Polyiso Insulation, High Density Wood Fiberboard, Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ISO 95+GL, Ultragard, Fesco Foam		
Minimum 1" thick	N/A	N/A
High Density Fiberboard		
Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane (**Minimum 60 Mils thick**) attached through the preliminary attached insulation as specified. Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or OMG 2-3/8" Barbed XHD Plates and #15 Roofgrip fasteners spaced 12" o.c. through 5" wide laps spaced in rows 73" apart. The 5" wide laps are then sealed with a minimum 1-1/2" wide heat seal.

Maximum Design Pressure: -52.5 psf; (See General Limitation #7.)



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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.

System Type D(6): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, High Density Wood Fiberboard, Fiber Base HD Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ISO 95+GL, UltraGard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Wood Fiberboard Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane (**Minimum 60 Mils thick**) attached through the preliminary attached insulation as specified. Membrane is mechanically attached using OMG 2-3/4" Super XHD Barbed Plate and MaxLoad fasteners; OMG Super XHD Fasteners and OMG 2-3/8" Barbed XHD Plates spaced 18" o.c. through 6" wide laps spaced in rows 72" apart. The 6" wide laps are then sealed with a minimum 2" wide heat seal.

Maximum Design Pressure: -45 psf; (See General Limitation #7.)



Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.

System Type D(7): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, High Density Wood Fiberboard, Fiber Base HD, Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ISO 95+GL, Ultragard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Fiberboard Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane (**Minimum 60 Mils thick**) attached through the preliminary attached insulation as specified. Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or OMG 2-3/8" Barbed XHD Plates and #15 Roofgrip fasteners spaced 6" o.c. through 6" wide laps spaced in rows 72" apart. The 6" wide laps are then sealed with a minimum 2" wide heat seal.

Maximum Design Pressure: -75 psf; (See General Limitation #7.)



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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.

System Type D(8): Multilayer Insulation System, Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ACFoam III, ISO 95+GL, Fesco Foam or DuraBoard		
Minimum 1" thick	N/A	N/A

<u>Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
High Density Wood Fiberboard,		
Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or #15 HS Fasteners and Dekfast Isofast IF-2.375-AT Membrane Plate spaced 6" o.c. through 6" wide laps spaced in rows 72" apart. The 6" wide laps are then sealed with a minimum 1½" wide heat seal.



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Fastening #2: Membrane is applied over insulation and its 2" laps are sealed. Membrane is then mechanically attached to deck using ASAP Roofgrip Pre-Assembled System #15 Heavy Duty Fasteners and Dekfast Isofast IF-2.375-AT Membrane Plates spaced 6" o.c. in rows 8' apart. A 6" wide strip of membrane is then heat welded over the fastener rows or a 6" dia. membrane cap may be heat welded over each fastener and plate.

Maximum Design Pressure: -45 psf; (See General Limitation #7.)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittted Table.

System Type D(9): Multilayer Insulation System, Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
EPS over gypsum barrier. Minimum 1" thick	N/A	N/A
<u>Base or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Dow Styrofoam, ISO 95+GL Minimum 1" thick	N/A	N/A
High Density Wood Fiberboard, Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.



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- Fastening #1:** Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or Dekfast #14 or #15 HS Fasteners and Dekfast Isofast IF-2.375-AT Membrane Plates spaced 6" o.c. through 6" wide laps spaced in rows 72" apart. The 6" wide laps are then sealed with a minimum 1½" wide heat seal.
- Fastening #2:** Membrane is applied over insulation and its 2" laps are sealed. Membrane is then mechanically attached to deck using ASAP Roofgrip Pre-Assembled System or Dekfast #14 or #15 Heavy Duty Fasteners and Dekfast Isofast IF-2.375-AT Membrane Plates spaced 6" o.c. in rows 8' apart. A 6" wide strip of membrane is then heat welded over the fastener rows or a 6" dia. membrane cap may be heat welded over each fastener and plate.
- Maximum Design Pressure:** -45 psf; (See General Limitation #7.)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks1 fasteners spaced at 30 in. o.c.

System Type D(10): Multilayer Insulation System, Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

<u>Base Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
EPS over gypsum barrier. Minimum 1" thick	N/A	N/A
<u>Base or Top Insulation Layer</u>	<u>Insulation Fasteners</u> <u>(Table 3)</u>	<u>Fastener Density/ft²</u>
Dow Styrofoam, ISO 95+GL Minimum 1" thick	N/A	N/A
High Density Wood Fiberboard, Minimum ½" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: Minimum ¼" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using Olympic Stainless Steel Plate with Olympic Standard or Heavy Duty Stainless Steel Fasteners or Dekfast #14 or #15 Heavy Stainless Steel Fasteners and Plates spaced 18" o.c. through 4½" wide laps spaced in rows 48" apart. The 4½" wide laps are then sealed with a minimum 1½" wide heat seal.

Maximum Design Pressure: -45 psf; (See General Limitation #9.)

Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: 18, 20, or 22 ga. Thick, 1.5 in. deep, steel roof deck meeting ASTM A1008/A1008M-01a or A653/653M-01a or A653/653M-01a SS Grade 80, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with Teks 4 or Teks 5 fasteners spaced 6 in. at the supports. Panel side laps secured with Teks 1 fasteners spaced at 30 in. o.c.

System Type D(11): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of any of the following insulations.

<u>Insulation Layer</u>	<u>Insulation Fasteners</u> (Table 3)	<u>Fastener Density/ft²</u>
EnergyGuard Perlite, FescoBoard, Structodek, ENRGY-, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, AC Foam II, ISO 95+GL, Ultragard, Fesco Foam Minimum 1" thick	N/A	N/A
High Density Wood Fiberboard Minimum 1/2" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Plus Membrane attached through the preliminary attached insulation as specified. Membrane is mechanically attached using OMG 2-3/8" barbed XHD plate with #15 OMG XHD fasteners spaced 6" o.c. through 5" wide laps spaced in rows 59" apart. The 5" wide laps are then sealed with a minimum 2" wide heat seal

Maximum Design Pressure: -75 psf; (See General Limitation #9.)



Membrane Type: Single Ply, PVC
Deck Type 2I: Steel, Insulated
Deck Description: Minimum 22 ga., 33 ksi steel deck
System Type D(12): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
EPS over gypsum barrier. Minimum 1" thick	N/A	N/A
<u>Base or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
EnergGuard Perlite FescoBoard, Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ISO 95+GL, UltraGard, Fesco Foam Minimum 1" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Membrane, Standard Roofing or C3 Fleece Backed Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: Membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or Dekfast #14 or #15 screws and Dekfast Isofast IF-2.375-AT Membrane plates spaced 18" o.c. through 3" wide laps spaced 48" apart.

Fastening #2: Roof cover is rolled over the insulation and its 2" laps are sealed. Membrane is mechanically attached using Heavy Duty Screws or Dekfast #14 or #15 screws spaced 18" o.c. in rows spaced 48" apart. 6" diameter membrane caps placed over the fastener/plate head.

Maximum Design -45 psf; (See General Limitation #9.)



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Membrane Type: Single Ply, PVC

Deck Type 2I: Steel, Insulated

Deck Description: Minimum 22 ga. Thick, 1.5 in. deep, 80ksi, steel deck attached to structural supports spaced a maximum of 6-ft. o.c. with #12 HWH Tek 1 fasteners spaced 6 in. at the supports. Panel side laps secured with #10 or #12 Tek 1 fasteners spaced at 30 in. o.c.

This Tested Assembly has been analyzed for allowable deck stress. See Evidence Submittal Table.

System Type D(13): Membrane mechanically attached over preliminary fastened insulation.

All General and System Limitations apply. Roof accessories not listed in Table 1 of this NOA are not approved and shall not be installed unless said accessories demonstrate compliance with prescriptive Florida Building Code requirements and are field fabricated utilizing the approved membranes listed in Table 1.

One or more layers of the Base Layer insulation covered by one layer of the insulation listed as Top Layer.

<u>Base Insulation Layer (Optional)</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
EPS over gypsum barrier. Minimum 1" thick	N/A	N/A

<u>Base or Top Insulation Layer</u>	<u>Insulation Fasteners (Table 3)</u>	<u>Fastener Density/ft²</u>
EnergGuard Perlite FescoBoard, Structodek, ENRGY-3, ENRGY-3 PSI-25, Ultra-Max, Thermarroof Plus, ACFoam II, ISO 95+GL, UltraGard, Fesco Foam Minimum 1" thick	N/A	N/A

Note: All layers of insulation and base sheet shall be simultaneously attached. See membrane below for fasteners and density. Refer to Roofing Application Standard RAS 117 for insulation attachment requirements. Insulation shall have preliminary attachment, prior to the installation of the roofing membrane. At an application rate of two fasteners per board for insulation boards having no dimension greater than 4 ft., and four fasteners for any insulation board having no dimension greater than 8 ft.

Vapor Retarder: (Optional) Any UL or FM approved vapor retarder applied to the roof deck or over a base layer of insulation.

Fire Barrier: (Optional) Minimum 1/4" Dens Deck secured to the deck with the insulation.

Membrane: C3 Membrane, Standard Roofing or C3 Fleece Backed Membrane attached through the preliminary attached insulation as specified below.

Fastening #1: 78" wide membrane is mechanically attached using ASAP Roofgrip Pre-Assembled System or Dekfast #14 or #15 screws and Dekfast Isofast IF-2.375-AT Membrane plates spaced 18" o.c. through 6" wide laps spaced 72" apart.

Maximum Design: -45 psf; (See General Limitation #7.)



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STEEL DECK SYSTEM LIMITATIONS:

1. If mechanical attachment to the structural deck through the lightweight insulating concrete is proposed, a field withdrawal resistance testing shall be performed to determine fastener patterns and density. All testing and fastening design shall be in compliance with Testing Application Standard TAS 105 and Roofing Application Standard RAS 117 and/or RAS 137, calculations shall be signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant.
2. For steel deck application where specific deck construction is not referenced: The deck shall be a minimum 22 gage attached with 5/8" puddle welds with weld washers at every flute with maximum deck spans of 5 ft. o.c.

GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance; refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. Insulation may be installed in multiple layers. The first layer shall be attached in compliance with Product Control Approval guidelines. All other layers shall be adhered in a full mopping of approved asphalt applied within the EVT range and at a rate of 20-40 lbs./sq., or mechanically attached using the fastening pattern of the top layer
3. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt, panel size shall be 4' x 4' maximum.
4. An overlay and/or recovery board insulation panel is required on all applications over closed cell foam insulations when the base sheet is fully mopped. If no recovery board is used the base sheet shall be applied using spot mopping with approved asphalt, 12" diameter circles, 24" o.c.; or strip mopped 8" ribbons in three rows, one at each side lap and one down the center of the sheet allowing a continuous area of ventilation. Encircling of the strips is not acceptable. A 6" break shall be placed every 12' in each ribbon to allow cross ventilation. Asphalt application of either system shall be at a minimum rate of 12 lbs./sq.

Note: Spot attached systems shall be limited to a maximum design pressure of -45 psf.

5. Fastener spacing for insulation attachment is based on a Minimum Characteristic Force (F') value of 275 lbf., as tested in compliance with Testing Application Standard TAS 105. If the fastener value, as field-tested, are below 275 lbf. insulation attachment shall not be acceptable.
6. Fastener spacing for mechanical attachment of anchor/base sheet or membrane attachment is based on a minimum fastener resistance value in conjunction with the maximum design value listed within a specific system. Should the fastener resistance be less than that required, as determined by the Building Official, a revised fastener spacing, prepared, signed and sealed by a Florida Registered Engineer, Architect, or Registered Roof Consultant may be submitted. Said revised fastener spacing shall utilize the withdrawal resistance value taken from Testing Application Standards TAS 105 and calculations in compliance with Roofing Application Standard RAS 117.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117 and/or RAS 137. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. All attachment and sizing of perimeter nailers, metal profile, and/or flashing termination designs shall conform to Roofing Application Standard RAS 111 and applicable wind load requirements.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

END OF THIS ACCEPTANCE